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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Michael P. Spertus

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EXAMINER

VERDI, KIMBLEANN C

ART UNIT

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2194

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/789,902	Applicant(s) SPERTUS ET AL.	
	Examiner KimbleAnn Verdi	Art Unit 2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-10,12-15 and 17-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-3,5-10,12-15 and 17-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1 – 3, 5 – 10, 12 – 15, and 17 – 19 are pending in the application.

Claim Objections

2. **Claims 1, 9, 14, 19 objected to because of the following informalities:**
 - a. Claim 1 and 19, line 6, claim 9, line 7, claim 14, lines 6-7, the recitation of “upon a launch of the application”, should be “upon a launch of each of the plurality of the applications”;
 - b. Claim 1, 9, and 19 lines 8 and 16, claims 6, 7, and 8, line 2, claims 13 and 18, line 3, claim 14, lines 9 and 17, the recitation of “the plurality of applications”, should be “each of the plurality of applications”;
 - c. Claims 1, 9, and 19 lines 9-10 and 13-14, claim 14, lines 11 and 14-15, the recitation of “the respective calling application”, should be “a respective each of the plurality of applications calling the standard programming functions”;
 - d. Claim 5, line 2, claims 12 and 17, line 3, the recitation of “one of the applications”, should be “one of each of the plurality of applications”;
 - e. Claim 14, line 10, the recitation of “each of the standard programming functions”, should be “each of the one or more of the standard programming functions”;
 - f. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claims 1-3, 5-10, 12-15, and 17-19 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

5. The claim language in the following claims is not clearly understood:

- a. As per Claim 1, lines 9-10, it is not clearly understood what is meant by each of the standard programming functions is external to the respective calling application (i.e. external is equivalent to implementation code is located external to each of the plurality of applications; Examiner suggests amending the claim as follows: wherein the standard programming functions comprise implementation code which is located external to each of the plurality of applications calling the standard programming function).
- b. As per claims 9, 14, and 19, have the same deficiencies as claim 1.
- c. Claims 2-3, 5-8, 10, 12-13, 16-18, and 13-15 did not cure the deficiencies of claims 1, 9, 14, and 19.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2194

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 1 – 3, 5 – 10, 12 – 15, and 17 – 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teegan et al (hereinafter Teegan, previously cited) (U.S. Patent 6,748, 555 B1) in view of Suresh (previously cited)(U.S. Patent 7,143,396), and in further view of Hundt et al. (hereinafter Hundt, previously cited) (U.S. Publication No. 2002/0152455 A1).**

8. **As to claim 1**, Teegan teaches the invention substantially as claimed including a method for use in a distributed management framework comprising a plurality of applications, wherein each of the plurality of applications is configured to make function calls to standard programming functions, the method comprising:

using the agents to intercept the function calls to the standard programming functions made by the plurality of applications (Fig. 3, col. 10, lines 2-5, step 406, Fig. 6, col. 12, lines 38-39).

9. Teegan does not explicitly disclose inserting a respective agent into each of the plurality of applications upon a launch of each of the plurality of applications, wherein each of the standard programming functions is external to a respective each of the plurality of applications calling the standard programming functions; routing the function calls to alternative implementations of the standard programming functions, wherein

Art Unit: 2194

each of the alternative implementations of the standard programming functions is internal to the respective each of the plurality of applications calling the standard programming functions; and using the alternative implementations of the standard programming functions to collect availability metrics for each of the plurality of applications.

10. However Suresh teaches inserting a respective agent into each of the plurality of applications (inserts a probe into an executing program; col. 4, lines 7 – 23) upon a launch of the application (code is inserted within program code statically and/or dynamically; col. 3, lines 12 – 20), routing the function calls to alternative implementations of the standard programming functions (operation 4, the original instruction is replaced with a pointer or instruction redirecting execution to the beginning of probe function 208a; col. 4, lines 7 – 23), and using the alternative implementations of the standard programming functions to collect availability metrics for the plurality of applications (a probe calls a corresponding probe function 108, which comprises a series of computer executable instructions for retrieving information from data module 106 if necessary, observing performance metrics; col. 3, lines 50 – 60).

11. Teegan as modified by Suresh does not explicitly disclose wherein each of the standard programming functions is external to a respective each of the plurality of applications calling the standard programming functions; and wherein each of the alternative implementations of the standard programming functions is internal to the

Art Unit: 2194

respective each of the plurality of applications calling the standard programming functions.

12. However Hundt teaches wherein each of the standard programming functions (i.e. system calls) is external to a respective each of the plurality of applications calling the standard programming functions (paragraphs [0021], lines 1-4, [0030], lines 3-11, [0032], lines 7-8, and [0033], lines 1-5); and wherein each of the alternative implementations (i.e. instrumented function including probe code) of the standard programming functions is internal to the respective each of the plurality of applications calling the standard programming functions (paragraph [0036], lines 1-11).

13. It would have been obvious to a person of ordinary skill in the art to modify the invention of Teegan to incorporate the features of Suresh and Hundt. One of ordinary skill in the art would have been motivated to make the combination because Hundt teaches performance measurements are taken by obtaining instrumentation data for an executable program while the program is executing without any pre-processing by creating instrumented versions of functions when the functions are invoked, and thereafter executing the instrumented functions instead of the original functions (paragraph [0017], lines 1-4 and 10-13 of Hundt).

Art Unit: 2194

14. **As to claim 2**, Teegan teaches the method of claim 1, wherein the standard programming functions comprise memory functions (col. 15, lines 4-7).

15. **As to claim 3**, Teegan teaches the method of claim 1, wherein the intercepting the function calls comprises intercepting the function calls in a production environment (col. 19, lines 24-26).

16. **As to claim 5**, Teegan teaches the method of claim 1, further comprising: modifying program code of at least one of the applications to enable the intercepting the function calls to the standard programming functions (col. 3, lines 19-23).

17. **As to claim 6**, Teegan teaches the method of claim 1, further comprising: using the availability metrics for performance management of the plurality of applications in the distributed management framework (col. 15, lines 49-67 and col. 16, lines 1-5).

18. **As to claim 7**, Teegan teaches the method of claim 1, further comprising: configuring the distributed management framework to monitor a subset of the plurality of applications (col. 11, lines 12-14, and col. 16, lines 6-9, col. 26).

19. **As to claim 8**, Teegan teaches the method of claim 1, further comprising: aggregating the availability metrics for the plurality of applications at a console for performance management (Fig. 11, col. 15, lines 50-55).

Art Unit: 2194

20. **As to claim 9**, this claim is rejected for the same reasons as claim 1; see the rejection to claim 1 above.

21. **As to claims 10 and 12**, these claims are rejected for the same reasons as claims 3 and 5, respectively; see the rejections to claims 3 and 5 above.

22. **As to claim 13**, this claim is rejected for the same reasons as claim 8; see the rejection to claim 8 above.

23. **As to claim 14**, this claim is rejected for the same reasons as claim 1; see the rejection to claim 1 above.

24. **As to claims 15 and 17**, these claims are rejected for the same reasons as claims 3 and 5, respectively; see the rejections to claims 3 and 5 above.

25. **As to claim 18**, this claim is rejected for the same reasons as claim 8; see the rejection to claim 8 above.

26. **As to claim 19**, this claim is rejected for the same reasons as claim 1; see the rejection to claim 1 above.

Response to Arguments

27. Applicant's arguments with respect to the claims 1-3, 5-10, 12-15, and 17-19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

28. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

29. U.S. Patent 5,918,004 to Anderson et al., U.S. Patent 5,598,249 to Grossman et al., U.S. Patent 6,438,512 B1 to Miller, U.S. Patent 6,671, 876 B1 to Podowski, U.S. Patent 6,996,808 B1 to Niewiadomski et al., U.S. Patent 7,269, 828 B2 to Civlin, U.S. Patent 7,281,242 B2 to Inamdar, U.S. Patent 7,287, 247B2 to Gschwind et al., U.S. Patent 7,293,259 B1 to Dmitriev, U.S. Patent 7,293,260 B1 to Dmitriev, U.S. Patent 7,353,507 B2 to Gazdik et al., U.S. Patent 7,424,723 B2 to Rangarajan, U.S. Patent 7,478,371 B1 to Gove, U.S. Publication No. 2004/0003375 A1 to George et al., U.S. Publication No. 2004/0025165 A1 to Desoli et al., and U.S. Publication No. 2004/0068560 A1 to Oulu et al., disclose monitoring applications for improving computer program performance.

30. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

Art Unit: 2194

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

31. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KimbleAnn Verdi whose telephone number is (571)270-1654. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm EST..

33. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571)272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2194

34. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Meng-Ai An/
Supervisory Patent Examiner, Art Unit 2195

KV
March 7, 2009